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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,808	12/08/2000	Danny Chin	DIVA/241	3084

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EXAMINER

NGUYEN, QUANG N

ART UNIT	PAPER NUMBER
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2141

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/733,808

Applicant(s)

CHIN ET AL.

Examiner

Quang N Nguyen

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/08/2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20050624.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

Detailed Action

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/24/2005 has been entered.

Claims 1, 15 and 17 have been amended. Claims 1-19 remain for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumelsky et al. (US 6,377,996), hereinafter referred as Lumelsky, in view of Mann et al. (US 5,862,312), hereinafter referred as Mann.**

4. As to claim 1, Lumelsky teaches a method for migrating a user from a source server module (*primary server*) providing a content stream to said user to a destination server module (*auxiliary server*), comprising:

determining, for said content stream being provided to said user, a transitional extent defining an appropriate first extent to be provided to said user via a destination server module (*i.e., determining parameters such as the Last Segmentation Marker, the Target Segmentation Marker, etc., with the "L" number of bytes between markers, to be inserted into the content stream to define the transitional segment used by the target server to schedule the switch and to allow the user to continue receiving the content stream from the target server without too much interruption, i.e., defining an appropriate first extent to be provided to said user via a destination server, i.e., via the target server*) (Lumelsky, Figs. 7 and 13, C3:L66 - C4:L3, C8: L44-52 and C10: L33-48);

determining if said destination server module is capable of providing said transitional extent to said user within a first time period (*based on the Target Segmentation Marker associated with the request, the target server may estimate whether given the current network conditions and resources, a streaming connection would be available with a safe margin of error, i.e., within a time out period, for performing a seamless switch at the desired Target Segmentation Marker*) (Lumelsky, C10: L48-54 and C11: L53-59); and

causing said destination server module to provide said transitional extent and subsequent extents associated with said content stream to said user, each extent

containing an amount of information (*i.e., each transitional segment containing "L" number of bytes information*) (Lumelsky, C10:L64 - C11: L29).

However, Lumelsky does not explicitly teach that the information retrieved from a single storage device of an array of storage devices during one service period.

In a related art, Mann teaches a method and system for redundantly storing and accessing video data objects according to a (Redundant Array of Inexpensive Disks) RAID-5 process, wherein retrieving the DataBlocks of a single video object spread across the members of a cluster in a round robin fashion using the read process such as reading the first block from cluster member 0, for example, the second block from cluster member 1, and the third block from cluster member 2 and at this point the read process would recycle back to cluster member 0 (*i.e., retrieving extent of information from a single storage device of an array of storage devices during one service period*) (Mann, C10: L32-50).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Lumelsky and Mann to include retrieving DataBlocks (*i.e., extent of information*) from a single storage device of an array of storage devices during one service period since such methods were conventionally employed in the art to provide a method and system for increasing delivery bandwidth, providing fault tolerance, and input/output load balancing in a multiprocessor computer cluster, *i.e.*, in a distribution networking environment.

5. As to claim 2, Lumelsky-Mann teaches the method of claim 1, wherein said first time period comprises a transitional extent deadline determining the time at which said transitional extent must be retrieved from a storage device (*i.e., a transitional time out based on or defined by a Deadline Segmentation Marker*) (Lumelsky, Fig. 13 and C10: L55-63).

6. As to claim 3, Lumelsky-Mann teaches the method of claim 1, wherein said second step of determining comprises the steps of:

communicating at least said transitional extent including a transitional extent deadline to said destination server module (*to migrate a client and its streaming session, AS1 710 signals the selected target server PS2 700 with the hand-off request message 740 including a Deadline Segmentation Marker as in Fig. 13*) (Lumelsky, C10: L33-48); and

evaluating a message received from said destination server module, said message comprising one of a rejection, an acceptance and a modified acceptance of a migration of said user to said destination server module (Lumelsky, C10: L55-63).

7. As to claim 4, Lumelsky-Mann teaches the method of claim 3, wherein in the case of a rejection of the migration of said user to said destination server module, an alternate destination server module is selected (Lumelsky, C11: L60-67).

8. As to claim 5, Lumelsky-Mann teaches the method of claim 3, wherein in the case of an acceptance message, said method further comprises the steps of determining in the event of said transition extent deadline has passed; determining the next transitional extent for said content stream being provided to the user (*i.e., if the hand-off proceed message was not received and a time out was taken, the processing returns to step 1000 to receive more signals*) (Lumelsky, Fig. 11 and C12: L42-45).

9. As to claim 6, Lumelsky-Mann teaches the method of claim 5, wherein in response to said transitional extent deadline not having passed, stopping output and sending a trigger message to said destination server module (Lumelsky, C11: L17-29).

10. As to claim 7, Lumelsky-Mann teaches the method of claim 6, further comprising the step of waiting for a response message from said destination server module (*i.e., the main/primary server waiting for an acceptance or denial of service for the hand-off request from the target server*); and in response to an error indicative response message, selecting an alternative destination server module (*i.e., in case of a denial of service for the hand-off request from the target server, the process returns to step 990 to select an alternative server*) (Lumelsky, Fig. 10, C10: L55-63 and C11: L60-67).

11. As to claim 8, Lumelsky-Mann teaches the method of claim 3, wherein in response to a modified acceptance message, said method performs the steps of:

selecting a new transition extent in the case of said modified acceptance being appropriate (*i.e., facilitating the negotiation of a common start point*); and

selecting an alternative destination server module if said modified acceptance is inappropriate (*the migration may be repeated until a server satisfying a constraint is found*) (Lumelsky, C14: L17-49).

12. As to claim 9, Lumelsky-Mann teaches the method of claim 4, wherein an alternate extent is selected to cause a repetition in content preparation (*i.e., inherently, facilitating the negotiation of a common start point could cause a repetition in content preparation*).

13. As to claims 10-11, Lumelsky-Mann teaches the method of claim 1, wherein said transitional extent is entered at an extent boundary (*i.e., the market insertion unit 406 prepares and formats the segmentation markers 408, 410, 494 and inserts them among the frames 418 of the original stream 416*) and including an asserted discontinuity flag (*i.e., including an End Marker Flag*) (Lumelsky, Figs. 6-7 and C8: L29-59).

14. As to claims 12-14, Lumelsky-Mann teaches the method of claim 1, wherein said transitional extent is determined with respect to a packet offset parameter comprising an asserted discontinuity flag (*i.e., comprising an End Marker Flag*) in a header portion of said transitional offset packet (Lumelsky, Fig. 7 and C8: L60-64).

15. Claims 15-16 are corresponding receiving method claims of method claims 1-8; therefore, they are rejected under the same rationale.

16. Claims 17-19 are corresponding apparatus claims of method claims 1-8; therefore, they are rejected under the same rationale.

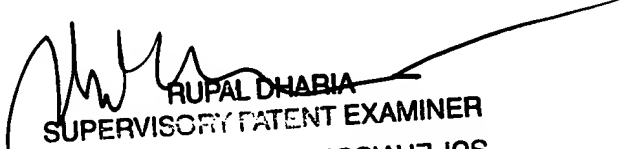
17. Applicant's arguments as well as request for reconsideration filed on 06/24/2005 have been fully considered but they are moot in view of the new ground(s) of rejection.

18. A shortened statutory period for reply to this action is set to expire THREE (3) months from the mailing date of this communication. See 37 CFR 1.134.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang N. Nguyen whose telephone number is (571) 272-3886.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's SPE, Rupal Dharia, can be reached at (571) 272-3880. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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